

In re Application of:
Orang Dialameh et al.
Application No.: 09/915,204
Filed: July 24, 2001
Page 2

PATENT
Docket No.: EYEM1240-1

Amendments to the Claims:

This list of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method for determining a feature location, comprising:
providing left and right camera images of the feature;
locating the feature in the left camera image and in the right camera image using bunch graph matching; and
determining the feature location in multiple dimensions including depth based on the feature locations in the left camera image and the right camera image.

2. (previously presented) A method for determining a feature location, comprising:
providing left and right camera images of the feature;
locating the feature in the left camera image and in the right camera image using image analysis based on wavelet component values generated from wavelet transformations of the camera images; and
determining the feature location in multiple dimensions including depth based on the feature locations in the left camera image and the right camera image.

3. (original) A method for determining a feature location as defined in claim 2, wherein the wavelet transformations use Gabor wavelets.

4. (previously presented) Apparatus for determining a feature location, comprising:
means for providing left and right camera images of the feature;
means for locating the feature in the left camera image and in the right camera image
using image analysis based on wavelet component values generated from wavelet
transformations of the camera images; and
means for determining the feature location in multiple dimensions including depth based
on the feature locations in the left camera image and the right camera image.

5. (previously presented) Apparatus for determining a feature location as defined in
claim 4, wherein the wavelet transformations use Gabor wavelets.

6. (currently amended) A method for determining a feature location, comprising:
providing first and second spaced-apart camera images of the feature;
locating the feature in the first camera image using image analysis based on wavelet
component values generated from wavelet transformations of the first camera image, and
locating the feature in the second camera image using image analysis based on wavelet
component values generated from wavelet transformations of the second camera image; and
determining the feature location in multiple dimensions including depth based on the
feature location in the first camera image and the feature location in the second camera image.

7. (original) A method for determining a feature location as defined in claim 6, wherein
the wavelet transformations use Gabor wavelets.

8. (previously presented) Apparatus for determining a feature location, comprising:
means for providing left and right camera images of the feature;
means for locating the feature in the left camera image and in the right camera image
using bunch graph matching; and
means for determining the feature location in multiple dimensions including depth based
on the feature locations in the left camera image and the right camera image.

9. (currently amended) Apparatus for determining a feature location, comprising:
means for providing first and second spaced-apart camera images of the feature;
means for locating the feature in the first camera image using image analysis based on
wavelet component values generated from wavelet transformations of the first camera image, and
locating the feature in the second camera image using image analysis based on wavelet
component values generated from wavelet transformations of the second camera image; and
means for determining the feature location in multiple dimensions including depth based
on the feature location in the first camera image and the feature location in the second camera
image.

10. (previously presented) Apparatus for determining a feature location as defined in
claim 9, wherein the wavelet transformations use Gabor wavelets.

11. (new) A method for determining a feature location as defined in claim 1, wherein the feature is an eye of a person's face.

12. (new) A method for determining a feature location as defined in claim 2, wherein the feature is an eye of a person's face.

13. (new) A method for determining a feature location as defined in claim 6, wherein the feature is an eye of a person's face.

14. (new) A method for real-time determination of the location of a person's eyes in three-dimensions for auto-stereoscopic imaging, comprising:

providing left and right spaced-apart camera images of a person's face, the person's face including a left eye and a right eye;

locating the left eye and the right eye in the left camera image using image analysis based on wavelet component values generated from wavelet transformations of the left camera image, and locating the left eye and the right eye in the right camera image using image analysis based on wavelet component values generated from wavelet transformations of the right camera image; and

determining the feature locations of the left eye and the right eye in three dimensions based on the left and right eye locations in the left camera image and the left and right eye locations in the right camera image.

15. (new) A method for real-time determination of the location of a person's eyes in three-dimensions for auto-stereoscopic imaging as defined in claim 14, wherein the wavelet transformations use Gabor wavelets.

16. (new) A method for real-time determination of the location of a person's eyes in three-dimensions for auto-stereoscopic imaging as defined in claim 15, wherein the image analysis comprises bunch graph matching.

17. (new) Apparatus for real-time determination of the location of a person's eyes in three-dimensions for auto-stereoscopic imaging, comprising:

means for providing left and right spaced-apart camera images of a person's face, the person's face including a left eye and a right eye;

means for locating the left eye and the right eye in the left camera image using image analysis based on wavelet component values generated from wavelet transformations of the left camera image, and locating the left eye and the right eye in the right camera image using image analysis based on wavelet component values generated from wavelet transformations of the right camera image; and

means for determining the feature locations of the left eye and the right eye in three dimensions based on the left and right eye locations in the left camera image and the left and right eye locations in the right camera image.

18. (new) Apparatus for real-time determination of the location of a person's eyes in three-dimensions for auto-stereoscopic imaging as defined in claim 17, wherein the wavelet transformations use Gabor wavelets.

19. (new) Apparatus for real-time determination of the location of a person's eyes in three-dimensions for auto-stereoscopic imaging as defined in claim 18, wherein the image analysis comprises bunch graph matching.